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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,119	11/11/2003	Ralph C. Mays	005804.00006A	6232
28827	7590	08/03/2004	EXAMINER	
GABLE & GOTWALS 100 WEST FIFTH STREET, 10TH FLOOR TULSA, OK 74103			WILSON, JOHN J	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/706,119	Applicant(s) MAYS, RALPH C. 	
	Examiner John J. Wilson	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 26-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/06)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31, 34, 35 and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear how piezoelectric and laser energy can be sound energy.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31, 34-36 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 31, 34, 35 and 41, it is inaccurate to describe piezoelectric and laser energy as being sound energy as claimed. In claim 36, line 1, "coil" lacks proper antecedent basis within the claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26, 30, 32, 33, 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Malmin (3899830). Malmin shows applying filler material 10 to a distal portion of an elongated structural shaft, Fig. 10 and column 9, lines 19-23, inserting into a root canal, column 9, lines 24 and 25, this shown inserting step inherently showing that the shaft is capable of carrying the material to the root canal, and applying sonic energy, column 9, lines 25-31, causing a plastic flow. The applied sonic energy will inherently vibrate the shaft and therefore will inherently cause a decrease in surface tension. As to claim 32, Malmin shows a shaft, Fig. 10, filler material 10 applied to the shaft and a source of sound energy, Fig. 12.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 28 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of McSpadden (4353698). Malmin shows the structure as described above, however, does not show a temperature sensor. McSpadden teaches using a temperature sensor, column 4, lines 2-6. It would be obvious to one of ordinary skill in the art to modify Malmin to include the use of a

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temperature sensor as shown by McSpadden in order to better control the energy supplied to the shaft. The specific location of the sensor is an obvious matter of choice in the location of a known element in order to best sense the temperature at the needed site. As to claim 28, Malmin does not state that the shaft is a metal shaft. McSpadden teaches that it is known to use metal shafts, column 2, lines 57-59. It would be obvious to one of ordinary skill in the art to modify Malmin to include the use of metal as shown by McSpadden in order to make use of known materials for delivering energy to the site. As to claim 36, Malmin does not show the use of a coil. McSpadden shows using a coil, column 3, line 29. It would be obvious to one of ordinary skill in the art to modify Malmin to include the use of a coil as shown by McSpadden in order to make use of known ways of generating energy supplied to an endodontic shaft. The location of the coil is an obvious matter of choice in the location of a known element to the skilled artisan.

Claims 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of Corvatto (4480996). Malmin shows the structure as described above, however, does not show using a plastic shaft. Corvatto teaches the use of a plastic shaft 12, column 2, lines 66-68. It would be obvious to one of ordinary skill in the art to modify Malmin to include the use of plastic as shown by Corvatto in order to make use of art known materials for supplying energy to an endodontic site. As to claim 35, Malmin does not show the use of laser energy. Corvatto teaches using laser energy, column 3, line 26. It would be obvious to one of ordinary skill in the art to

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modify Malmin to include using laser energy as shown by Corvatto in order to make use of art known forms of energy supplied to an endodontic site.

Claims 31, 34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of Ruddle (6179617). Malmin shows the structure as described above, however, does not show the use of piezoelectric energy. Ruddle teaches that it is known to use piezoelectric energy as an alternative for creating vibrations, column 4, lines 18-24. It would be obvious to one of ordinary skill in the art to modify Malmin to include using piezoelectric energy as shown by Ruddle in order to make use of art known forms of energy supplied to an endodontic site.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No.

6,312,261 in view of Malmin (3899830). The '261 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '261 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic shaft. The shown energy will inherently vibrate the shaft. The specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan.

Claims 26-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No.

6,644,972 in view of Malmin (3899830). The '972 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '972 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic shaft. The shown energy will inherently vibrate the shaft. The specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan.

***Drawings***

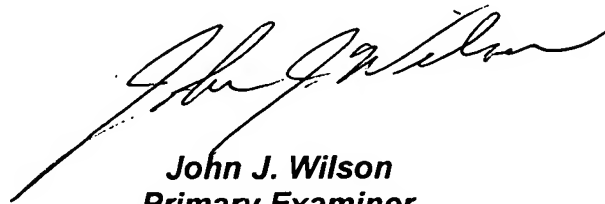
The drawings filed November 11, 2003 have been found to be acceptable by the examiner.

***Specification***

Because a pre-amendment was not entered, applicant must resubmit an amendment to the specification to include a reference to prior applications

***Conclusion***

Any inquiry concerning this communication should be directed to John Wilson at telephone number (703) 308-2699.



**John J. Wilson  
Primary Examiner  
Art Unit 3732**

jjw  
July 30, 2004  
Fax (703) 872-9306  
Work Schedule: Monday through Friday, Flex Time